UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,707	01/26/2004	Raymond Wellman	021331-000710US	9283

20350 7590 11/03/2005

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER	
BRUENJES, CHRISTOPHER P	
ART UNIT	PAPER NUMBER
1772	

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/765,707	WELLMAN ET AL.	
	Examiner	Art Unit	
	Christopher P. Bruenjes	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) *16-25* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15 and 26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-26* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *20040423, 20041018*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-15 and 26, drawn to a slip collar, classified in class 428, subclass 36.91.

II. Claim 16, drawn to method of joining ducts, classified in class 156, subclass 158.

III. Claims 17-25, drawn to method of making a slip collar, classified in class 156, subclass 173.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed could be used in a materially different process such as storing tabs by inserting tabs having a slightly smaller thickness than the

slot into the slot region to form interference fit until the tab is needed.

Inventions I and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as forming a solid block of fiber reinforced plastic material, boring a hole in the middle to make a tube, followed by boring a slot into a portion of the tubular wall.

Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions. For instance, invention II is a method of joining ducts by assembling pre-manufactured articles and invention III is a method of making a slip collar, which entails the manufacture of an article.

2. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

3. During a telephone conversation with Patrick Jewik on September 30, 2005 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-15 and 26. Affirmation of this election must be made by applicant in replying to this Office action. Claims 16-25 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 5, 8-15, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Williams et al (USPN 5,961,154).

Regarding claim 1, Williams et al anticipate a slip collar (the combination of reference numbers 20 and 60, Figure 2). The slip collar comprises a tubular outer wall portion (reference number 20, Figure 2) and a tubular inner wall portion (reference number 60, Figure 2). An intermediate portion (reference number 62, Figure 2) formed of a circumferential rib on the surface of the tubular inner wall portion contacting the outer wall portion. Therefore, it is disposed between the tubular outer wall portion and the tubular inner wall portion. A slot region is defined by the tubular outer wall portion and the tubular inner wall portion on either side of the circumferential rib. The tubular inner wall portion and the intermediate portion comprise a fiber reinforced plastic material (col.7, l.55). Regarding claim 2, the tubular outer wall portion and the

tubular inner wall portion are each generally cylindrically shaped (Figure 2). Regarding claim 3, the tubular inner wall portion comprises a chemically resistant material such as fiber reinforced plastic material, and the tubular outer wall portion comprises a fire-resistant material such as metal and includes fire retardant material (col.4, l.1-2). Regarding claim 5, the tubular inner wall portion is shorter than the tubular outer wall portion (Figure 7). Regarding claims 8 and 9, the slip collar further comprises an adhesive composition (reference number 94, Figure 7) comprising novalac or epoxy resin in the slot region (col.4, l.2-4). Claim 10 includes all of the limitations of claim 1 and that the tubular outer wall portion and inner wall portion form two slot regions that face away from each other. Williams et al teaches that a slot is formed on either side of the intermediate portion or circumferential rib (Figure 2). The limitations of claims 11, 12, and 14, are taught by Williams et al in the same manner as shown above with regards to claims 2, 3, and 5 respectively. Regarding claim 13, the slip collar is adapted to join two duct sections (reference number 68 and 70 as shown in Figure 2). Regarding claim 15, Williams et al teach a duct assembly comprising the slip collar (represented by the combination of reference numbers 20 and 60, Figure 2), a first duct (reference 68, Figure 2) including a

first end inserted into the first slot region and a second duct (reference number 70, Figure 2) including a second end inserted into the second slot region. Regarding claim 26, the limitation that the "slot region is formed using a milling process" is a process limitation in an article claim. Process limitations are only given patentable weight in an article claim insofar as what structure that process produces. In this case, whether a milling process or another process is used to form the slot region does not change the structure of the article. The article of Williams et al is determined to comprise a slot region with the same structure as a slot region formed by a milling process, absent the showing of evidence that the particular process produces an unobvious difference.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al (USPN 5,961,154) in view of Shea et al (USPN 5,505,497).

Williams et al teach all that is claimed in claim 1 as shown above, but fails to teach that the slip collar has only one slot region. However, Shea et al teach that it is well known in the art to place two U-shaped elements around the ends of two ducts to be joined in order to form a leak proof joint that is resistant to fire and chemical corrosion from gases and/or condensate within the duct sections by bonding the two U-shaped elements together (see abstract). One of ordinary skill in the art would have recognized that once the two U-shaped elements each being a slip collar having only one slot region are bonded together they form the same structure as the single slip collar having two slot regions. Therefore, it would have

been obvious to one having ordinary skill in the art at the time Applicant's invention was made to form the slip collar of Williams et al as two separate slip collars each having only one slot region in order to form a duct joint collar assembly, in which the slip collars can be bonded to the ends of the duct before bonding the ducts together, which would leave only the step of bonding the two slip collars together at the site of assembly, as taught by Shea et al.

Thus, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to form the slip collar of Williams et al as two separate slip collars having one slot region, in order to form a duct joint collar assembly that enables more of the steps of joining two ducts together to be completed before arriving at the assembly sight where the ducts will be joined, as taught by Shea et al.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al (USPN 5,961,154) in view of Nishio (USPN 6,045,164).

Williams et al teach all that is claimed in claim 1 as shown above, but fail to teach that the tubular inner wall portion comprises a fluoropolymer material. However, Williams et al teach that the fume duct joint is used to join fume ducts

that are used to carry corrosive chemicals and that the ducts and joints must be chemical resistant even at high temperatures (col.1, l.37-44). Nishio teaches that fluoropolymers such as polytetrafluoroethylene are superior in resistance to chemicals and heat (col.4, l.43-53). One of ordinary skill in the art would have recognized that fluoropolymers that are superior in resistance to chemicals and heat would be beneficial in use in forming the chemical resistant portion of a fume duct joint. One of ordinary skill in the art would have also recognized that Williams et al and Nishio are analogous insofar as both references are concerned with joints between tubular articles made of resins that require chemical resistance.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to form the tubular inner wall portion of Williams et al so that it includes a fluoropolymer material, since Williams et al teaches that the inner wall portion must be chemical resistant because corrosive chemicals pass through the inside the duct system and since Nishio teaches that fluoropolymers are well known in the art of tube joints and connectors to be chemical and heat resistant.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al (USPN 5,961,154) in view of Shea (USPN 5,383,994).

Williams et al teach all that is claimed in claim 1 as shown above, and teach that at least the inner slip collar is formed of fiber reinforced material, but fails to teach what matrix material is used. However, Shea teaches that fiberglass reinforced plastics are substituted for any metals used in the formation of exhaust systems because the fiberglass reinforced plastic material is lighter (col.1, l.44-47). Shea also teaches that two major problems are faced when using fiberglass reinforced plastic materials in fume ducts systems including fire resistance and chemical resistance. Shea goes on to teach that in order to overcome these issues the ducts are formed having an inner wall portion and outer wall portion in the same manner as the Williams et al fume duct and fume duct joint assembly. Shea teaches that the matrix used to form the outer wall portion is a phenol resorcinol type fire retardant resin and the inner tubular wall portion is formed of a vinyl ester (col.3, l.9-15). One of ordinary skill in the art would have recognized that fume duct joints and fume ducts themselves are made completely form fiberglass reinforced plastics in place of metals in order to form lighter ducts, as taught by Shea. One

of ordinary skill in the art also would have recognized that the fume ducts as well as the joints require a fire resistant outer portion and chemical resistant inner portion in order to functional adequately as a fume duct assembly, as taught by Shea.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to substitute a fiberglass reinforced phenol resorcinol material for the metal outer tubular portion of Williams et al in order to provide a fire resistant outer portion that is lighter in weight, as taught by Shea, and to use vinyl ester as the resin in the fiberglass reinforced material of Williams et al forming the inner portion of the fume duct joint, in order to provide chemical resistance, as taught by Shea.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Van Vliet (USPN 4,099,749).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Bruenjes whose telephone number is 571-272-1489.

The examiner can normally be reached on Monday thru Friday from 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher P Bruenjes
Examiner
Art Unit 1772

CPB CPB
October 27, 2005

HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

10/31/05